

Greater Necklaced Laughingthrush *Garrulax pectoralis*  
 Abbott's Babbler *Malacocincla abbotti*  
 Puff-throated Babbler *Pellorneum ruficeps*  
 Rufous-capped Babbler *Stachyris ruficeps*  
 Brown-cheeked Fulvetta *Alcippe poiocephala*  
 Nepal Fulvetta *Alcippe nipalensis*  
 White-bellied Yuhina *Yuhina zantholeuca*  
 Scarlet-backed Flowerpecker *Dicaeum cruentatum*  
 Purple-throated Sunbird *Nectarinia sperata*  
 Little Spiderhunter *Arachnothera longirostra*  
 Black-headed Munia *Lonchura malacca*

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# World record count of roosting harriers *Circus* in Blackbuck National Park, Velavadar, Gujarat, north-west India

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The existence of a large, regular winter roost of harriers *Circus* at Blackbuck National Park, Velavadar, Bhavnagar District, Gujarat, north-west India, has been known since at least the mid-1980s, and assessments of the numbers of birds present at peak times have ranged up to 2,000 birds (Clarke 1996). In 1997, the numbers of birds roosting at Velavadar were clearly very high as early as September, and on 6 December from 16h30 we positioned teams on three (south, west and north) of the four sides of the grassland roosting area and counted the birds entering from those three directions. Wind force amounted to about 1 on the Beaufort Scale, from the south and, although there was a 9/10 cover of hazy cloud, the light was bright and visibility was clear.

The total of harriers counted was slightly in excess of 2,500. Given that we did not have the manpower to cover the fourth side, and the fact that some birds had entered the grassland before we began counting, it seems reasonable to conclude that more than 3,000 birds attended the roost. The great majority were Montagu's Harriers *C. pygargus*, but perhaps 15-25% were Pallid Harriers *C. macrourus* and a few were Eurasian Marsh Harriers *C. aeruginosus*.

The monsoon rains upon which the rain-fed agriculture of this semi-arid region depends had been good in 1997, and this had probably resulted in a high population of Orthoptera on which many of the harriers attending this roost feed (especially Montagu's: Clarke 1996). The principal orthopteran present was the Tree Locust *Anacridium rubripinum*. The Desert Locust *Schistocerca gregaria* is said to occur spasmodically in the region, but was not noted there in late 1997.

The pattern of arrival of the harriers from the south differed significantly from that from the west and north, with 76% of birds from the south present by 18h05 but only 54% of birds from the west and 56% of birds from the north. Arrivals peaked between 18h05 and 18h10, but fell off markedly during the following 10 minutes, and ceased by 18h25. Sunset occurred at about 17h56. It is not known what proportions of birds had been pre-roosting close by and what proportion were flying in from further afield, but the great majority flew in directly and quite low. One notable concentration of thermalling harriers drifted over into the grassland from the south-west.

This roost was three times the size of the largest harrier roosts documented elsewhere in recent times — in Africa (1,000 birds: Cormier and Baillon 1991) and in the USA (1,053 birds: McCurdy *et al.* 1995) — and appears to be the largest ever documented roost of harriers in the world.

Using the 1% population criterion accepted in many situations for assessing the importance of sites attracting bird concentrations, this roost could well qualify as significant on the world scale. The size of the Asian breeding population of Montagu's Harrier is unknown, but as the area of the breeding distribution of the species in Asia is roughly equivalent to that in Europe, then it may be reasonable to double the European figure to arrive at an estimate of the world breeding population. The figures for breeding pairs (or nests) in Europe in both Clarke (1996) and Hagemeyer and Blair (1997) broadly agree (apart from a very low figure for Spain in the latter and an error multiplying the total European

population by 10 in its text!). If we interpret these as a minimum of 30,000 and maximum of 40,000 (taking the European Russia estimate as 20,000-30,000), double these figures to include Asia, double again to arrive at the number of breeding adults, and double a third time to include an estimate for juveniles and immatures surviving by, say, mid-winter equal to adults in number, then 2,400 birds (the total harrier roost of 3,000 at Velavadar x 80% Montagu's) are 1% of the minimum (the safest calculation from the conservation point of view, taking into account the high degree of uncertainty in the figures), or 0.75% of the maximum.

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Some new elevation records of birds from Mehao Wildlife Sanctuary, Arunachal Pradesh, India

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In December 1992, while on a visit to the Mehao Wildlife Sanctuary (28°15'N 95°50'E) of Dibang valley district, Arunachal Pradesh, I came across two preserved specimens of birds. One consisted of a pair of feathered legs and some feathers from a large owl *Bubo/Ketupa*, and the other was a stuffed specimen.

The owl had been accidentally caught in a trap set up for ground birds near Mayodia Forest Inspection Bungalow. While it was in the trap it had been partly eaten by a carnivore. From the feathers the owl was subsequently identified as a Tawny Fish Owl *Ketupa flavipes*. The locality where it was trapped was at an elevation of 2,450 m, considerably exceeding the upper limit of 1,500 m for the Himalayas given by Ali and Ripley (1987). This record confirms the occurrence of the species in Arunachal Pradesh.

The stuffed specimen was of a Dollarbird *Eurystomus orientalis* which was killed somewhere near Mayodia at

about 2,500 m, also considerably exceeding the upper limit of 1,000 m given for the Indian subcontinent (Ali and Ripley 1987) and 4,000 ft in South-East Asia (King *et al.* 1975).

I am grateful to the Nepali Chowkidar of Forest Inspection Bungalow, Mayodia for making the specimens available for examination, and also for donating one leg and some feathers of the Fish Owl. I am also grateful to S. M. Satheesan of the Bombay Natural History Society for helping in identification of the Fish Owl.

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